IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for producing a lightened turbomachine blade, ~~which comprises~~comprising the following operations:

a) production of a blank of an airfoil;

b) cutting of a cavity into one side, called the hollowed side;

c) cutting of a socket in the hollowed side, ~~this~~the socket bordering the cavity and having a bearing surface and a lateral surface;

d) production of a cover having an external surface with the shape of the hollowed side and an internal surface opposite the external surface, the socket and the cover being dimensioned so that the cover can be inserted into the socket and bear ~~via its~~the internal surface against the bearing surface so that the external surface lies in ~~the~~an extension of the hollowed side, ~~the~~a lateral surface of the socket surrounding the cover and positioning the latter above the cavity in order to cover ~~this~~the cavity in the hollowed side;

e) insertion of the cover into the socket and welding ~~of the~~ edges of the cover to the rest of the airfoil on the hollowed side, the welding being carried out by ~~the~~a rotation of a welding tool, having a finger and a shoulder, penetrating from the hollowed side between the cover and the rest of the airfoil until contact of the shoulder with the hollowed side and the cover, the welding tool then being moved along ~~the~~a welding path, and ~~the~~a weld bead penetrates into the airfoil to a depth P at least equal to ~~the~~a thickness EC of the ~~edge~~edges of the cover so as to provide continuity of material between the ~~edge~~edges of the cover and the rest of the airfoil over a depth at least equal to the thickness EC of the edges of the cover; and

f) finishing of the blade.

Claim 2 (Currently Amended): The process as claimed in claim 1, wherein the welding is carried out by a friction welding machine, this machine comprising a table and a spindle that are capable of relative displacements along three degrees of translational freedom and two degrees of rotational freedom, the spindle causing a welding tool to rotate about a geometrical axis of rotation, the welding tool having ~~a~~the finger projecting from ~~a~~the shoulder, the blank being placed in a cradle attached to the table, ~~this~~the cradle having a bearing surface of shape complementary to ~~the~~a facing side of the blank, the blank bearing via ~~its~~a side thereof facing said bearing surface, ~~this~~the cradle ~~also~~ having stops surrounding the blank in order to position the latter laterally in the cradle, the cover being inserted into the socket, the whole assembly formed by the blank and the cover being held in place by a number of remotely controlled clamps, the ~~rotating~~ finger being pushed into the hollowed side between the edges of the cover and the rest of the airfoil, the shoulder then being flush with the hollowed side, each controlled clamp being retracted upon passage of the welding tool so as not to interfere with the latter.

Claim 3 (Currently Amended): The process as claimed in ~~either of claims 1 and~~claim 2, wherein the blank has, at ~~the~~a tip thereof, at least one extension located in a region beyond that which the final blade ~~(10)~~ will occupy, ~~the~~a start and ~~the~~an end of the weld bead being in the extension.

Claim 4 (Currently Amended): The process as claimed in ~~any one of claims 1 to~~claim 3, wherein with the tip being open~~,~~ and the cavity having a central rib welded to the cover by a central weld bead, ~~the~~a start of which is referenced, ~~wherein~~ the start of the central weld bead is on ~~the~~a lateral weld bead and wherein the central weld bead is produced prior to the lateral weld bead.

Claim 5 (Currently Amended): A lightened turbomachine blade ~~obtained~~made by the process as claimed in ~~one of claims~~claim 1 ~~to 4~~.

Claim 6 (New): A lightened turbomachine blade made by the process as claimed in claim 2.

Claim 7 (New): A lightened turbomachine blade made by the process as claimed in claim 3.

Claim 8 (New): A lightened turbomachine blade made by the process as claimed in claim 4.

Claim 9 (New): A process for producing a turbomachine blade, comprising:

producing an airfoil blank;

cutting a cavity on a hollowed side of the airfoil blank;

cutting a socket bordering the cavity in the hollowed side, the socket having a bearing surface and a lateral surface;

producing a cover having opposite internal and external surfaces, a portion of the internal surface being shaped so as to match a portion of the hollowed side, the socket and the cover being dimensioned so as to allow the cover to be inserted into the socket with the internal surface placed against the bearing surface so that the external surface lies in an extension of the hollowed side, a lateral surface of the socket surrounding the cover and the latter being positioned so as to cover the cavity in the hollowed side;

inserting the cover into the socket and welding edges thereof to the airfoil on the hollowed side, the welding being carried out by a welding tool penetrating from the hollowed

side between the cover and the airfoil until contact is made of the welding tool with the hollowed side and the cover, moving the welding tool along a welding path, and forming a weld bead penetrating into the airfoil to a depth P at least equal to a thickness EC of the edges of the cover so as to provide continuity of material between the edges of the cover and the airfoil over a depth at least equal to the thickness EC; and

finishing the blade.

Claim 10 (New): The process as claimed in claim 9, wherein the welding is carried out by a friction welding machine, the welding tool comprises a finger and a shoulder, and the friction welding machine comprises a table and a spindle capable of relative displacements along three degrees of translational freedom and two degrees of rotational freedom, the spindle causing the welding tool to rotate about a rotational axis.

Claim 11 (New): The process as claimed in claim 10, further comprising:

placing the blank in a cradle attached to the table, the cradle having a bearing surface complementarily shaped to a facing side of the blank, the blank bearing via a side thereof facing the bearing surface, the cradle having stops surrounding the blank to position the latter laterally in the cradle, the cover being inserted into the socket, and the blank and the cover being held in place by a number of remotely controlled clamps;

pushing the rotating finger into the hollowed side between the edges of the cover and the airfoil, the shoulder then being flush with the hollowed side; and

retracting each controlled clamp upon passage of the welding tool.

Claim 12 (New): The process as claimed in claim 9, wherein a tip of the blank has at least one extension located in a region beyond that occupied by the finished blade, and a start and an end of the weld bead is disposed in the at least one extension.

Claim 13 (New): The process as claimed in claim 12, wherein, with the tip being open and the cavity having a central rib welded to the cover by a referenced central weld bead, a start of the referenced central weld bead is on a lateral weld bead and the referenced weld bead is produced prior to the lateral weld bead.

Claim 14 (New): A lightened turbomachine blade made by the process as claimed in claim 9.

Claim 15 (New): The process as claimed in claim 9, wherein a minimum thickness of the cover is equal to at least one half of the thickness of a piece that joins leading and trailing edges of the airfoil together.

Claim 16 (New): The process as claimed in claim 9, wherein a width of the cavity is at least equal to one half of the width of the airfoil.

Claim 17 (New): The process as claimed in claim 9, wherein a minimum thickness of the cover is equal to at least 20% of a thickness of the airfoil.

Claim 18 (New): The process as claimed in claim 9, wherein the welding comprises brazing or fusion using an electron beam or laser beam.

Claim 19 (New): The process as claimed in claim 12, wherein the blade comprises only one extension encompassing both the start and the end of the weld bead.

Claim 20 (New): The process as claimed in claim 19, wherein the tip of the blade is closed, the cavity beneath the cover does not emerge on the tip, the start and the end of the weld bead are coincident or are located substantially at a same point on the extension, and the weld bead describes a closed loop around an entire periphery of the cover.